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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,894	12/31/2001	David A. Wyatt	42390.P13869	8819

8791 7590 07/13/2005

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EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,894

Applicant(s)

WYATT, DAVID A.

Examiner

Lewis A. Bullock, Jr.

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The cited claims detail a method of rebalancing a plurality of resource objects in a global resource namespace having a parent-child relationship. As proper under M.P.E.P. 2106, claims directed to non-functional subject matter are non-statutory and thereby rejected based on 35 U.S.C. 101. The only cited functional operation of rebalancing the plurality of resource objects can be a mental or abstract operation that does not need to be performed by a computer system and therefore the claims are directed to an abstract idea.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WOLFF (U.S. Patent 6,067,545).

As to claim 1, WOLFF teaches a method, comprising: maintaining a global resource namespace (via a uniform file directory format in the directory/access database / resource database having a plurality of records / table of all available resources and available paths to the resources through servers / single system image of all network resources and all available paths to those resources through available nodes) including a list of a plurality resource objects (resource records) and a representation of the relationship among the resource objects (col. 22, lines 10-67, wherein each record has a pointer to the parent directory) (see also col. 21, lines 10-34, wherein the resources are volumes and contains fields that indicate the parent administrative node, i.e. parent server, and current administrative nodes, i.e. currently assigned server; col. 61, lines 1-52; col. 31, lines 30-42; col. 9, line 35-63; abstract, "Each of the resources are coupled to at least two of the server nodes...for handling an administrative portion of an I/O request for the corresponding resource.") and rebalancing the plurality of resource objects (via determining a time out interval has expired / based on a resource being unavailable or coming online) (col. 50, line 20 – col. 51, line 2; col. 8, lines 10-34; abstract). However, WOLFF does not explicitly detail that the relationship is a parent-child relationship. WOLFF does teach that the functional relationship exists between the databases (col. 23, lines 20-54) and information in the global resource namespace has an indication of a parent (col. 21, lines 10-34 wherein the resources are volumes and contains fields that indicate the parent administrative node, i.e. parent server, and current administrative nodes, i.e. currently assigned server). Therefore, it would be obvious to one skilled in the art at the time of the

invention that the object, i.e. record or volume, having an indication of a parent is a child of that record and therefore has a parent-child relationship.

As to claim 2, WOLFF teaches rebalancing the plurality of resource objects includes recalculating available resources (col. 50, line 20 – col. 51, line 2; col. 8, lines 10-34).

As to claim 3, WOLFF teaches rebalancing the plurality of resources objects includes determining whether the available resources are less than currently consumed resources (via calculating weights) (col. 8, lines 10-34; col. 29, line 45 – col. 30, line 2).

As to claim 4, WOLFF teaches rebalancing the plurality of resource objects includes allocating a temporary namespace if the available resources are less than the currently consumed resources (via rebalancing the system based on preferred resource-server affiliations, expected volume traffic, relative server processing capability, and group priority, and domain matches and updating the current namespace / database and replicating a copy of the database to each server) (col. 8, lines 10-34).

As to claim 5, WOLFF teaches rebalancing the plurality of resource objects includes for each resource object determining whether the resource object has an owner (via determining who the administrative server for a volume is in response to an I/O by examining the server configuration database) (col. 10, lines 25-39).

As to claim 6, WOLFF teaches rebalancing the plurality of resource objects includes performing an attachment routine for each resource object that is found to have an owner (via assigning the server to the resource) (abstract; col. 2, lines 37-64; col. 3, lines 9-12).

As to claims 7 and 8, WOLFF teaches rebalancing the plurality of resource objects includes updating the namespace (namespace / database) based on the rebalancing of resource objects and distributing the namespace to each server (abstract; col. 8, lines 10-34). It would be obvious to one of ordinary skill in the art at the time of the invention that updating of the namespace would involve either (1) the creation of a temporary namespace, updating, and subsequent storing of the namespace modifications as the current namespace or (2) the use of the current namespace as the temporary namespace, updating, and subsequent storing of the namespace as the new namespace. Both operations of updating destroy the old namespace such that the subsequent transmission overwrites the current namespace as the new namespace. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention that updating and renaming of a namespace is obvious in view of WOLFF in order to synchronize the namespace on a plurality of servers.

As to claims 9-16, reference is made to a machine readable medium that corresponds to the method of claims 1-8 and is therefore met by the rejection of claims 1-8 above.

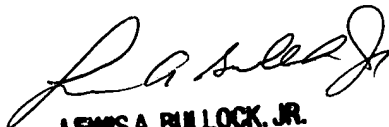
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 11, 2005


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER